## REMARKS

Claims 13-24 are pending in the above-identified application, as these claims have replaced original claims 1-12. Support for new claims 13-24 is found in original claims 1-12.

*Removal of Claim Objections*

Original claims 1-11 were objected to because of alleged non-idiomatic English. These claims have been cancelled and replaced with new claims 13-24 which recite proper idiomatic English such that these previous objections should be withdrawn.

*Issues under 35 USC 102(b) and 103(a)*

Claim 12 has been rejected under 35 USC 102(b) as being anticipated by Tanaka '043 (WO 99/24043 which corresponds to the translation in US No. 6,689,339 hereinafter "Tanaka '339") and as evidenced by Mosby's (Mosby's Medical, Nursing & Allied Heath Dictionary, 5th Edition, Kenneth N. Anderson Ed., New York, 1998, page 1528).

Claims 1-11 have been rejected under 35 USC 103(a) as being unpatentable over Tanaka '043/Tanaka '339 in view of Gibbins '258 (WO 01/49258).

Both of the above-noted rejections are respectfully traversed to the extent that these rejections apply to the newly submitted claims 13-24.

*Present Invention and Its Advantages*

The present invention is directed to a material for preparing an external preparation containing carbon dioxide substantially in a "non-bubble" state which includes a base agent and a reactant. The base agent constitutes an elastic polymeric three-dimensional network structure impregnated with a viscous material containing an acid and water. The reactant constitutes a carbonate for reacting with the base agent to generate carbon dioxide. Advantageously, the material of the present invention suppresses bubble formation by the generated carbon dioxide due to resistance by both the elastic polymeric three-dimensional network structure and the viscous material in the base agent, which results in enhanced carbon dioxide absorption by the skin (i.e. enhanced percutanous absorption). This contrasts with conventional devices and methods wherein

generated carbon dioxide gas bubbles disadvantageously disperse into the atmosphere with poor percutanous absorption. These points are explained, for example, at pages 5-7 of the present specification.

In addition to the above, it is noted that generated carbon dioxide which is "substantially in a non-bubble state" refers to a state in which it is difficult to identify bubbles of carbon dioxide with the naked eye. Evidence of the effectiveness of the material of the present invention is shown, for example, in the evaluation tests described at pages 47-60 of the present specification.

*Distinctions over Tanaka '043/Tanaka '339*

Tanaka '043/Tanaka '339 (hereinafter "Tanaka '339") discloses viscous compositions containing carbon dioxide wherein carbon dioxide bubbles are retained in an aqueous viscous composition. It is clear from a proper interpretation of Tanaka '339 that the described compositions provide for substantial generation of carbon dioxide in the form of bubbles. For example, as noted at column 14, lines 12-29, embodiments of the described compositions were evaluated with respect to the relative increase in carbon dioxide bubble generation which is described as the "foaming properties" of the evaluated compositions.

Tanaka '339 fails to disclose or suggest a material which includes a base agent that suppresses carbon dioxide bubble generation for the purpose of advantageously enhancing percutanous absorption thereof as in the present invention. Tanaka '339 describes carbon dioxide generation outside the absorbent, whereas in contrast, such carbon dioxide generation occurs inside the absorbent of the material of the present invention. Tanaka '339 includes evaluation test of the described embodiments which asses the increase in carbon dioxide bubble formation or "foaming properties", wherein as in contrast, carbon dioxide is generated in substantially a non-bubble state in the present invention. Tanaka '339 describes a viscous composition which contains carbon dioxide bubbles, whereas in contrast, the viscous material employed in the base agent of the present invention contains an acid and water without carbon dioxide. Further, Tanaka '339 fails to disclose or suggest that an "elastic" polymeric structure be used, whereas in contrast, an elastic polymeric three-dimensional network structure is used in the base agent of the material of

the present invention. Consequently, significant patentable distinctions exist between the present invention and Tanaka '339, such that the above-noted rejections based on this reference must be withdrawn.

*Distinctions over Other Cited References*

It is submitted that the other cited references, i.e. Mosby's and Gibbins '258, fail to make up for the deficiencies noted with respect to Tanaka '339. Mosby's merely refers to a definition of the term "sponge", but fails to relate to carbon dioxide bubble generation compositions as described in Tanaka '339 and fails to suggest that such compositions should be supported in an "elastic" polymeric structure as in the present invention.

Gibbins '258 discloses methods and compositions for delivery devices which employ a matrix of a polymer network and a non-gelable polysaccharide having oxygen and optionally active agents incorporated therein. Gibbins '258 is further removed from the present invention than Tanaka '339, such that all of the above-noted distinctions over Tanaka '339 also apply to Gibbins '258. Consequently, even if Gibbins '258 is hypothetically combined with Tanaka '339, the resulting hypothetical combined disclosure would still fail to described or suggest the features of the present and claimed invention. Therefore, the above-noted rejection based on the combination of these references must also be withdrawn.

It is submitted for the reasons above that the present claims define patentable subject matter such that this application should now be placed in condition for allowance.

If any questions arise in the above matters, please contact Applicant's representative, Andrew D. Meikle (Reg. No. 32,868), in the Washington Metropolitan Area at the phone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: September 15, 2008

Respectfully submitted,

By _____
Andrew M. Meikle
Registration No.: 32,868
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant